

REMARKS

Claims 11-27 are pending. Claims 11, 12, and 21-27 are rejected. Claims 13-20 are withdrawn as not elected.

In the IDS form 1449 attached to the Office Action, Applicants respectfully request the Examiner to explain why he crossed out part of p. 1 and all of pp. 2-11, and did not initial the non-crossed out references on p. 1.

CLAIM REJECTIONS UNDER 35 U.S.C. §112

Claims 11, 12, and 21-27 are rejected under 35 U.S.C. §112 ¶ 2 as not described because "the elected compound does not find support in the specification". "Further, the compounds listed all contain CONH bonds attached to the Ar group and bio-molecule. One skilled in the art is not taught how or even if the bio-molecule will attach to a CH₂ group. Nor is there any indication that this compound would work similar to the disclosed compounds in a method of performing a phototherapeutic procedure." Applicants respectfully disagree.

The originally filed claims in this and the parent application (U.S. application Serial No. 09/788,347) recite E = bombesin receptor binding molecule, L = (CH₂)_a, a = 1, Ar = benzene, X = single bond. Originally filed claims are part of the specification.

The Examiner states that "One of skill in the art is not taught how or even if the bio-molecule will attach to a CH₂ group. Nor is there any indication that this compound would work similar to the disclosed compounds in a method of performing a phototherapeutic procedure."

Applicants disagree and attach a Declaration under 37 C.F.R. §1.132 in support of their position. Briefly, the Declaration shows that a person of ordinary skill in the art appreciates that a bio-molecule can be attached to a CH₂ moiety by halogenating an aromatic compound Ar (e.g., using molecular bromine, using N-bromosuccinamide) to form Br-CH₂-Ar-X-N₃, that can react with a peptide -SH or -NH₂ group to form at least peptide-S-CH₂-Ar-X-N₃ or peptide-NH-CH₂-Ar-X-N₃, respectively. The Declaration also shows that reductive amination using peptide-NH₂ and Ar-CHO can be used to form peptide-NH-CH₂-Ar-X-N₃.

In addition, the specification provides an example of how a biomolecule attaches to a CH₂ group and can be used in a method of performing a phototherapeutic procedure, supported at least at p. 10 line 8 to p. 11 line 24, and p. 18 line 9 to p. 20 line 2. The specification also incorporates by reference in its entirety U.S. Patent No. 5,714,342, which discloses a peptide (a biological molecule) attached to a CH₂ moiety and its use (col. 15 line 60 to col. 34 line 44).

The specification discloses that E locates the active photosensitizer portion of the molecule to the target site to be treated. ("Epitope (E) is a particular region of the molecule that is recognized by, and binds to, the target surface.", p. 12 lines 20-22). A listing of specific examples is disclosed at p. 13 lines 2-13; bombesin is included. Bombesin receptor binding molecules include the tetradecapeptide bombesin itself (Pro-Glu Asn Arg Leu Gly Asn Gln Trp Ala Val Gly His Leu Met-amide, commercially available from Alpha Diagnostics International, San Antonio

TX), the endogenous ligands gastrin-releasing peptide (GRP), neuromedin B (NMB), and GRP-18-27, and antagonists including JMV-1458 (glycine-extended bombesin (paraphydroxy-phenyl-propionyl-Gln-Trp-Ala-Val-Gly-His-Leu-Met-Gly-OH)), PD165929, 1-naphthoyl-[DAla²⁴,DPro²⁶,ψ26-27]GRP-20-27, kuwanon H, and kuwanon G. Further, there are bombesin receptor binding kits to evaluate potential bombesin receptor binding compounds (e.g., DELFIA Bombesin Receptor Binding Kit, PerkinElmer (Boston MA)). Applicants also incorporate references (p. 13 line 17 to p. 14 line 9) that disclose coupling of diagnostic and radiotherapeutic agents to biomolecules.

For at least these reasons, Applicants assert that the public is put in possession of the invention, and that there is sufficient detail so that a person of ordinary skill in the art can reasonably conclude that the inventors had possession of the invention, as required for written description, and respectfully request the rejection be withdrawn.

CONCLUSION

The application is believed to be in condition for allowance. Applicants authorize credit card payment of the fee for time extension (see Electronic Fee Calculation sheet). If other fees are necessary, the Office is authorized to charge them to Deposit Account No. 20-0809.

The Examiner is invited to contact Applicants' undersigned representative with questions.

Respectfully submitted,

/Beverly A. Lyman/

Beverly A. Lyman, Ph.D.
Reg. No. 41,961

Thompson Hine, LLP
312 Walnut Street
14th Floor
Cincinnati OH 45202
Direct Dial 513 352 6596
680673.2